

**Commonwealth of Pennsylvania
Department of Environmental Protection**



**State Implementation Plan (SIP) Revision
For the Philadelphia Ozone Nonattainment Area
Reasonably Available Control Measure (RACM) Analysis**

July 2001

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Purpose and Background

On April 12, 2001, the Pennsylvania Department of Environmental Protection (DEP) received a request from the U.S. Environmental Protection Agency (EPA) asking Pennsylvania to submit additional information to the EPA, as a revision of Pennsylvania's State Implementation Plan (SIP) for the Philadelphia Ozone Nonattainment Area, on the analysis of additional reasonably available control measures (RACMs) that would advance the ozone attainment date for the Philadelphia area.

In accordance with the April 12, 2001 request, this document serves to demonstrate to the EPA that additional control measures were considered by DEP by clarifying relevant documentation previously submitted to EPA, and to reaffirm the DEP's commitment to the reductions contained in the state implementation plan (SIP) and revisions currently under review by the EPA.

On August 1, 1998, DEP submitted to the EPA its proposed Phase I SIP for the attainment of the national ambient air quality standard for ozone for the Philadelphia metropolitan area as part of the Philadelphia-Wilmington-Trenton Nonattainment Area. The Phase I requirements include adoption of specific control strategies necessary to meet the Post 1996 Rate-of-Progress plan through 1999; commitments to adopt, or adoption of, other Clean Air Act mandated and regional control programs; and modeling with interim assumptions. Phase II of the SIP, submitted on April 30, 1998 and revised in February 2000, includes participation in a two-year regional consultative process with other states in the eastern United States, and with EPA, to identify and commit to additional emission reductions necessary to attain the health-based ozone standard by the statutory dates. The Phase II SIP further describes the work undertaken by the Southeast Pennsylvania Ozone Stakeholders Group. It was in this forum where the additional measures described by the EPA in the April 12, 2001 letter were analyzed.

On February 25, 2000, DEP responded to EPA's Notice of Proposed Rulemaking (NPR) on the one-hour attainment demonstration for the Philadelphia-Wilmington-Trenton Area that was published in the *Federal Register* on December 16, 1999 (64 F.R. 70428) and the Notice of Adequacy Status that was published in the *Federal Register* on January 20, 2000 (65 F.R. 3230). That response, included as Appendix A, referenced the work done by the Southeast Pennsylvania Ozone Stakeholders Group and included their final report that was issued on January 16, 1997. That report contained a list of recommended control strategies based upon the analysis conducted by the group.

The Southeast Pennsylvania Ozone Stakeholders Group

In January 1996, Governor Ridge convened the Southeast Pennsylvania Ozone Stakeholders Group to address the ozone nonattainment issues in Southeast Pennsylvania. The stakeholder group represented a wide range of interests from environmental and citizen groups, industry, public utilities, small business, transportation, government, and motorist and health-care organizations. Twenty-eight stakeholders, including EPA, were invited to participate in the stakeholder process. CDR Associates, an independent mediator with an international reputation,

was retained by DEP to facilitate the discussions in the stakeholder group. The group also formed data management committees and worked with nationally recognized technical consultants on preparation of inventory data, control measure potential, and air quality modeling.

The stakeholder effort was a public process, held in open meetings, representing a broad base of constituencies. In addition, the stakeholders made an effort to ensure that other groups and the general public were aware of the process and had an opportunity to provide input. The stakeholders met for two full days each month, from April through December to discuss and, whenever possible, to find agreement on strategies that could materially improve air quality in southeastern Pennsylvania. The recommendations were contained in a final report, released on January 16, 1997.

The deliberations of the stakeholders followed two guiding principles and objectives: 1) to identify control strategies that collectively produced regional air quality that meets the current health based standard, and 2) to reflect the unique conditions of southeastern Pennsylvania. In so doing, the recommendations contained in the report seek to balance federal requirements for air quality with cost effective strategies that protect the public health and the regional economic integrity of the nonattainment area.

The Stakeholders Process and RACM

As a result of the stakeholder process, the group discussed hundreds of measures and formally evaluated over 150 control measures for stationary, area and mobile sources. Of these, one-third were measures related to transportation under the following general categories:

1. General programs for improved public transit within the city of Philadelphia and regional suburban communities;
2. Restriction of certain roads or lanes to, or construction of such roads or lanes for use by, passenger buses or high occupancy vehicles;
3. Employer-based transportation management plans, including incentives;
4. Regional trip-reduction regulations or ordinances;
5. Traffic flow improvement programs that achieve emission reductions;
6. Fringe and transportation corridor parking facilities serving multiple occupancy vehicle programs or transit services;
7. Programs to limit or restrict vehicle use in downtown areas or other areas of emission concentration particularly during periods of peak use;
8. Programs for the provision of all forms of high-occupancy, shared-ride services;
9. Programs to limit portions of road surfaces or certain sections of the metropolitan area to the use of non-motorized vehicles or pedestrian use, both as to time and place;
10. Programs for secure bicycle storage facilities and other facilities, including bicycle lanes, for the convenience and protection of bicyclists, in both public and private areas;
11. Programs to control extended idling of vehicles;
12. Programs to reduce motor vehicle emissions, consistent with Title II, which are caused by extreme cold start conditions;
13. Employer-sponsored programs to permit flexible work schedules;

14. Programs and ordinances to facilitate non-automobile travel, provision and utilization of mass transit, and to generally reduce the need for single-occupant vehicle travel, as part of transportation planning and development efforts of a locality, including programs and ordinances applicable to new shopping centers, special events, and other centers of vehicle activity;
15. Programs for new construction and major reconstructions of paths, tracks or areas solely for the use by pedestrian or other non-motorized means of transportation when economically feasible and in the public interest;
16. Programs to encourage the voluntary removal from use and the marketplace of pre-1980 model year light duty vehicles and pre-1980 model light duty trucks.

Pennsylvania included recommended reasonably available measures in the Philadelphia Ozone Severe Nonattainment SIP if they were cost-effective and would advance the attainment date, such as the Reasonably Available Control Technology (RACT) program for stationary sources. Measures were not included in the State Implementation Plan if they: 1) were considered to be economically or technologically infeasible, based on data presented to the group and taking into account local circumstances, 2) had emissions reductions that were insignificant or 3) would not advance the area's attainment date.

A number of stakeholder recommendations not included in the SIP are nonetheless being implemented. Many of these measures serve additional purposes or are effective on a long-term basis. While not practical for SIP purposes, they still assist in reducing emissions growth and in transportation conformity.

The stakeholders' final report, previously submitted to EPA on February 25, 2000, contains a detailed explanation of the stakeholder process, the Operating Agreement and summaries of the specific strategies analyzed. For your convenience, Appendix B of this document contains a copy of the stakeholders' final report. Appendix C is detailed data on the measures considered.

Summary

DEP is committed to the development and implementation of control measures and requirements in accordance with the process provided in the Pennsylvania Air Pollution Control Act and other applicable laws in order to attain the one-hour ozone standard to the benefit of the citizens of Pennsylvania. It recognizes that the stakeholder process helps ensure that goal. In addition, DEP continues to work with the Ozone Transport Commission (OTC) in developing several regional control measures to ensure attainment. DEP is a signatory to a March 28, 2001 OTC memorandum of understanding regarding the development of these measures.

DEP is confident that the clarification submitted in this document will serve to substantiate information previously submitted by DEP regarding RACMs and DEP's analysis regarding those measures deemed appropriate to further the attainment date for the Philadelphia area as expeditiously as practical. As we stated in our letter of February 25, 2001, we recognize that regular evaluation is an important part of any planning process. Therefore, Pennsylvania

will submit to EPA such mid-course review by December 31, 2003 as the Clean Air Act and the rules and regulations under the Clean Air Act require.

Public Comment. This SIP revision was available for public comment for the period May 26 through June 29, 2001. One public hearing was held on June 28, 2001 in DEP's Southeast Regional Office, Conshohocken. Notice was provided in the major newspaper in the five-county area and as a notice in the *Pennsylvania Bulletin*.